

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A data transfer controlling method in a radio system that transmits and receives data in an acknowledgement mode, the method comprising:

receiving data units having serial numbers lying in a range of a receiving window;

transmitting window size control information from a receiver to a transmitter based on a state of a receiving buffer that corresponds to the receiving window; and

varying a transmitting window size of the transmitter according to the transmitted window size control information, wherein the window size control information includes ~~either window size upward setting information, window size maintaining information, or window size downward setting information~~ if a receiving buffer is in an overflow and a downward window size is 1, wherein the window size control information includes window size upward setting information if a receiving buffer is not in an overflow and an upward setting level is up to an upper level, and the window size control information is transmitted simultaneously with acknowledgment information.
2. (Original) The method of claim 1, wherein the transmitter is a network and the receiver is a terminal.

Reply to Office Action dated July 2, 2008

3. (Previously Presented) The method of claim 1, wherein the window size control information is contained in status information to be transmitted.

4. (Original) The method of claim 1, wherein the window size control information is a window size super-field (SUFI).

5. (Previously Presented) The method of claim 3, wherein the status information includes an acknowledge (ACK) super-field (SUFI).

6. (Previously Presented) The method of claim 1, wherein the receiver adjusts the receiving window size to be the same as the transmitting window size.

7-10. (Canceled)

11. (Currently Amended) A data transfer controlling method in a radio system that controls a flow of a radio link and includes an entity operated in an acknowledgement mode, wherein window size update information is transmitted from a receiving entity to a transmitting entity based on a processing speed by the receiving entity of data units stored in a receiving buffer,

wherein acknowledgment information is transmitted simultaneously with the window size update information, the acknowledgment information controlling transmission of additional data units from the transmitting entity to the receiving entity, transmission of the additional data units controlled based on the window size update information, and

wherein the window size update information includes ~~either window size upward setting information, window size maintaining information, or window size downward setting information~~ if a receiving buffer is in an overflow and a downward window size is a 1, and wherein the window size update information includes window size upward setting information if a receiving buffer is not in an overflow and an upward setting level is up to an upper level.

12. (Previously Presented) The method of claim 11, wherein the entity is a radio link control (RLC) entity.

13. (Original) The method of claim 11, wherein the receiving entity adjusts a receiving window size to be the same as a transmitting window size.

Reply to Office Action dated July 2, 2008

14. (Original) The method of claim 11, wherein the window size update information is transmitted through status information.

15. (Previously Presented) The method of claim 11, wherein the window size update information is included in a window size super-field (SUFI).

16. (Previously Presented) The method of claim 14, wherein the status information includes an acknowledge (ACK) super-field (SUFI).

17. (Currently Amended) The method of claim 11, wherein the receiving entity determines a change of a window size according to a state of ~~[[a]]~~the receiving buffer.

18. (Previously Presented) The method of claim 17, wherein the receiving entity adjusts the window size to be downward set when data more than a certain level remains in the receiving buffer.

19. (Original) The method of claim 18, wherein the downward set window size is 1.

20. (Previously Presented) The method of claim 17, wherein the receiving entity adjusts the window size to be upward set when data more than a certain level does not remain in the receiving buffer.

Reply to Office Action dated July 2, 2008

21. (Original) The method of claim 20, wherein the upward setting level is up to an upper limit.

22. (Currently Amended) A data transfer controlling method in a radio data transfer of a mobile communication system, the method comprising:

receiving one or more protocol data units (PDUs) from a transmitting radio link control (RLC) entity;

checking a state of a receiving buffer for storing the one or more PDUs;

transmitting window size control information to the transmitting RLC according to a state of the receiving buffer, the window size control information to vary a transmitting window size of the transmitting RLC entity for transmitting additional PDUs to be stored in the receiving buffer, wherein acknowledgment information is transmitted simultaneously with the window size control information, the acknowledgment information controlling transmission of said additional PDUs based on the varied transmitting window size,

wherein the window size control information includes ~~either window size upward setting information, window size maintaining information, or window size downward setting information if a receiving buffer is in an overflow and a downward window size is 1, wherein the window size control information includes window size upward setting information if a receiving buffer is not in an overflow and an upward setting level is up to an upper level.~~

23. (Previously Presented) The method of claim 22, wherein a receiving RLC entity adjusts a receiving window size to be the same as the transmitting window size.

24-25. (Canceled)

26. (Previously Presented) The method of claim 22, wherein the window size control information is a window size super-field (SUFI).

27. (Original) The method of claim 22, wherein the window size control information is transmitted through status information.

28. (Previously Presented) The method of claim 27, wherein the status information is an acknowledge (ACK) signal.

29. (Previously Presented) The method of claim 28, wherein the ACK signal includes an ACK super-field (SUFI).

30-31. (Canceled)

32. (Previously Presented) The method of claim 1, wherein the acknowledgement information is included in a first super-field and the window size control information is included

in a second super-field, the first and second super-fields transmitted simultaneously within a status protocol data unit (PDU) from the receiver to the transmitter.

33. (Previously Presented) The method of claim 1, wherein the transmitting window is varied to a size that allows previously received data stored in the receiving buffer to be arranged in sequence without said additional data units being lost in the receiving buffer.

34. (Previously Presented) The method of claim 1, further comprising:
adjusting a window size of the receiving buffer based on the window size control information.

35. (Previously Presented) The method of claim 34, wherein the varied window size of the receiving buffer is adjusted to be equal the transmitting window size varied based on the window size control information.

36. (Previously Presented) The method of claim 22, wherein the window size control information includes window size maintaining information.

37. (Previously Presented) The method of claim 1, wherein the window size control information includes window size maintaining information.

Serial No. **10/650,792**

Docket No. **P-0577**

Reply to Office Action dated July 2, 2008

38. (Previously Presented) The method of claim 11, wherein the window size update information includes window size maintaining information.